

Title (en)
PIXEL CIRCUIT AND DISPLAY DEVICE

Title (de)
PIXELSCHALTUNG UND ANZEIGEVORRICHTUNG

Title (fr)
CIRCUIT DE PIXEL ET DISPOSITIF D'AFFICHAGE

Publication
EP 3151228 A1 20170405 (EN)

Application
EP 14861111 A 20140922

Priority
• CN 201410225975 A 20140526
• CN 2014087019 W 20140922

Abstract (en)
Disclosed are a pixel circuit and a display apparatus. The pixel circuit comprises a pixel compensation module (100), a light emitting module (200) and a touch detection module (300); the pixel compensation module (100) is connected to a first to a fourth scan signal lines (Scan[1], Scan[2], Scan[3], Em), a first operation voltage (Vdd), a data voltage (Vdata) and the light emitting module (200) respectively, and is configured to control the light emitting module (200) to emit light for display in accordance with inputs from the scan signal lines; the touch detection module (300) comprises a detection sub module (310) and an output sub module (320). The pixel compensation module (100) and the touch detection module (200) are integrated into the pixel circuit, and the pixel compensation module (100) and the touch detection module (200) share the data voltage (Vdata) and the scan signal line in common. In this way, the number of signal lines is decreased, thereby the pitch of pixels is largely decreased and IC cost is reduced, achieving a higher pixel density.

IPC 8 full level
G09G 3/32 (2016.01); **G06F 3/041** (2006.01); **G09G 3/3225** (2016.01)

CPC (source: EP US)
G06F 3/041 (2013.01 - US); **G06F 3/0412** (2013.01 - EP US); **G06F 3/04166** (2019.04 - US); **G06F 3/04184** (2019.04 - EP); **G06F 3/044** (2013.01 - EP US); **G09G 3/32** (2013.01 - US); **G09G 3/3233** (2013.01 - EP US); **G09G 3/3258** (2013.01 - US); **H10K 59/1213** (2023.02 - US); **H10K 59/1216** (2023.02 - US); **H10K 59/131** (2023.02 - US); **H10K 59/40** (2023.02 - US); **G09G 2300/0426** (2013.01 - US); **G09G 2300/0819** (2013.01 - EP US); **G09G 2300/0861** (2013.01 - EP US); **G09G 2320/043** (2013.01 - EP US); **G09G 2354/00** (2013.01 - EP US); **H01L 27/124** (2013.01 - US); **H01L 27/1255** (2013.01 - US)

Cited by
EP3154050B1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
US 2016253011 A1 20160901; **US 9740320 B2 20170822**; CN 104036723 A 20140910; CN 104036723 B 20160406; EP 3151228 A1 20170405; EP 3151228 A4 20180221; EP 3151228 B1 20191106; WO 2015180317 A1 20151203

DOCDB simple family (application)
US 201414443433 A 20140922; CN 2014087019 W 20140922; CN 201410225975 A 20140526; EP 14861111 A 20140922